



**DUNA** is an extruded stoneware of great quality with excellent technical characteristics of resistance and durability. Earth, water, air and fire are the only components which take part in its manufacturing process. Once extruded, the ceramic dough undergoes high firing temperature (1,360° C) in intermittent kilns for more than 40 hours.

**DUNA** is a plain, comfortable and anti-slip natural klinker; its smooth texture makes it a very appropriate material for the construction of areas around swimming pools. The differences **DUNA** presents in shading evoke warmth and it also offers a smooth surface to walk on, resembling the beach and the sun of the Mediterranean areas.

### Projects

The technical features of the **DUNA** collection allow its application in domestic constructions, commercial and industrial projects, both outdoors and indoors.

### Sustainability

**TERRAKLINKER, S.L.L.** follows a European norm respectful of the environment which makes possible the development of a more sustainable building construction.

*All the pieces of the DUNA collection are made up with the same mix of clays and undergo the same manufacturing process. Therefore, all DUNA pieces meet the standards mentioned in this technical data sheet.*

### TECHNICAL DATA



**Scratch resistance:** Mohs hardness 8 according to standard UNE-EN 101



**Resistance to deep abrasion:** < 180 mm<sup>2</sup> according to standard UNI-EN-ISO 10545-6



**Frost resistance:** complies with standard UNE-EN ISO 10545-12



**Resistance to impact:** complies with standard UNE-EN ISO 10545-5



**Determination of dimensions and Surface quality:** complies with standard UNE-EN ISO 10545-2



**Thermal shock resistance:** complies with standard UNE-EN ISO 10545-9



**Resistance to acids and bases:** complies with standard UNE-EN ISO 10545-13



**Resistance to stains:** complies with standard UNE-EN ISO 10545-14



**Firing temperature:** 1.360 °C according to certificate BRD/2/235/0009/91-2 of Bureau Veritas



**Determination of water absorption:** < 3 % according to standard UNE-EN ISO 10545-3 group Alla



**Bending strength:** > 30 N/mm<sup>2</sup> according to standard UNE-EN-ISO 10545-4

### Slip resistance scale:



• Classification R12 according to standard DIN 51130



• Class C according to standard DIN 51097



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# Instructions

## Fixing

Subfloor		<i>It must be compact, uniform, even and clean. It must be sloping enough for water drainage</i>
Bedding	Temperate climate	<i>When fixing a layer 4 cm thick min., use M5 N/mm<sup>2</sup> mortar (M7.5 in areas with intense traffic) When fixing a thin layer (1.5 cm approx.), use C2 cement-based grout.</i>
	Severe climate	<i>C2E cement-based grout in extreme conditions when flexibility is needed, use C2S1 or C2S2. The buttering -floating technique is recommended</i>
Fixing klinker		<i><u>The contents of various boxes should be thoroughly mixed before fixing to achieve the natural shade variation inherent in the product.</u> The tiles should be fixed with the underside fixing ribs all facing in the same direction.</i>
Joint grouting		<i>The bedding material must be set Clean the joints between the tiles Joint widths: 3/5 mm for small formats (less than 33x33 cm), 5/7 mm for large formats (33x33 cm and over)</i>
	Temperate climate	<i>Use CG1 or CG2 cement-based adhesive</i>
	Severe climate	<i>Use CG2 cement-based adhesive or RG for extreme conditions</i>
Expanding joints		<i>Use elastomeric sealants. Minimum thickness of 10 mm. Those joints must be fixed every: 20/25 m<sup>2</sup> for outdoor areas, 50/75 m<sup>2</sup> for indoor areas and 5 lm in pathways</i>
Perimeter and structural joints		<i>Use elastomeric sealants Minimum thickness of 10 mm</i>

## Cleaning and maintenance

Post fixing cleaning	Remains of adhesive and grouting materials (cement, mortar, etc.)	<i>Detergent DETERDEK or a soft descaler</i>
	Very dirty areas	<i>Detergent FilaPHZERO or a strongly acidic descaler (pH 1-2)</i>
Cleaning and maintenance	Daily cleaning	<i>Detergent FilaCLEANER or a universal detergent with neutral pH</i>
	Usual stains that leave a mark (oil, grease, organic dirt, etc.)	<i>Detergent FilaPS87 or FilaNOSPOT or a universal detergent with neutral pH in hot water (40-50 °C)</i>
	Limescale	<i>Detergent DETERDEK or a descaler</i>
	Remains of water-based paints Other remains of paints	<i>Detergent DETERDEK A specific solvent suitable for the type of paint being used</i>

### WARNING!

*You must always meticulously follow the instructions of the manufacturer of the cleaning product that is being used.*

